**Science Advisory Committee Meeting at Thorpewood.**

**Air Resources Workgroup**

**Notes from 3-7-02**

**Participants:** Doug Curtis (NPS – NCR), David Krask (DC Air Quality Division), James Lawry (George Mason University), George Taylor (George Mason University), Julie Thomas (EPA – Chesapeake Bay Program),

**Overview and Introduction**

Welcome and administrative details were discussed by Doug Curtis

**Purpose Statement**

Identify and develop a detailed list of resource components, stresses, sources, and ecological effects pertaining to air resources that allow us to determine which indicators/vital signs should be selected to be monitored to provide early warning of abnormal and unsafe conditions that adversely impact human health and natural and cultural resources.

**Workgroup Tasks**

Workgroups were set up for each Important Resource at the January SAC. Today's tasks are to identify:

1. Resource Components
2. Stressors
3. Sources
4. Ecological Effects

The workgroup will conduct a presentation to the Science Advisory Committee summarizing the Air Resources workgroup effort.

| *Resource Component*<br><br>Air Quality | *Stressor* | *Sources*<br>Same for all components | *Ecological Effects* | *Severity of Threat (High – Medium – Low - Unknown)* | *Indicator/Vital Sign* |
|---|---|---|---|---|---|
| Visibility | Particulates | Natural a. Wind blown geological crust, b. Volcanoes, c. Aerosols, d. Fire | Human Perception | | |
| Physical | a. Acidic deposition, b. UVB, c. Urban heat island | Anthropogenic a. Stationary (smokestack) Utilities and industries, b. Mobile (Planes, trains, and Automobiles), c. Area, i.e., rock quarries | a. Biodiversity (terrestrial and aquatic), b. Material and monument degradation, c. Health (increased biogenic emissions such as ozone precursors), d. Hydrologic, e. Geologic, f. Increased energy use (pollutants), g. Weather changes- rainfall shadow | | |
| Chemical | a. Nitrogen, b. Sulfer, c. Metals, i.e., mercury, d. Ozone, e. PM(10) & PM(2.5), f. Greenhouse gasses, g. Hydrogen ion deposition, h. Air toxics | | a. Biodiversity (terrestrial and aquatic), b. Terrestrial and aquatic eutrophication, c. Terrestrial and aquatic acidification, d. Toxicity affects- bioaccumulation, e. Material and monument degradation, f. Vegetation impacts, g. Climate change, h. Geographical shifts, i. Hydrology, j. Pest populations | | |
| Health | See all above | | Reduced and degrading health for possibly all species | | |